

DGDC Meeting Minutes

February 11, 2016

Attendance List:

Roger Barlow	USGS
Naomi Bates.....	DGS
David Bennett.....	DTI
Mark Biddle	DNREC
Dave Braig	JMT
Kim Cloud	DTI
Dan Cook	DTI
Roberto DeDeus	City of Newark
Robert Delach	Dewberry
Mike DelTufo	DTI
Lauren Devore	DeIDOT
Jay Gerner	DeIDOT
Jeremy Gibb.....	City of Dover
Lauren Good	KCI Technologies
James Gregory.....	DNREC
Alice Guerrant	DCHA
Jay Hodny	Kent County
Matt Jones	DNREC WSLs
Jimmy Kroon	DDA
Matthew Laick	DSHS
Danielle Lamborn	Kent County
Brian Laws	City of Newark
Susan Love	DNREC DEC
Mike Mahaffie.....	DNREC
Joel Marshall.....	Sussex County
Mary McColley	Kent County
Noemi Mendez	Census
Dorothy Morris.....	OSPC
Megan Nehrbas.....	Sussex County
Sathya Pendyala	Pepco
Miriam Pomilio.....	OSPC
Mollie Raley-Hall	DeIDOT
Shivaji Sengupta	DNREC
William Seybold.....	DE Forest Service
Rick Sherwood	DEMA
Olena Smith	UD
Debbie Sullivan	DTI/DNREC
Josh Thomas.....	DeIDOT
Doyle Tiller	OMD/DFM
Mike Townshend	DTI
Lillian Wang.....	DGS
Carl Yetter.....	DNREC

Welcome & Introductions

Miriam Pomilio started the meeting at 9:08 am. She welcomed everyone to the meeting and introductions were made.

November 12, 2015 Meeting Minutes

Roger Barlow made a motion to approve the November 12, 2015 Meeting Minutes (PDF). Olena Smith seconded the motion and it passed unanimously.

FirstMap Update

The DTI FirstMap team reported that many updates are being done. Services are being added as new data is acquired (DGS provided some geologic data, new Hydrology data for HUC's, etc.). The FirstMap team is also working on updating the Base Maps, caching them so they will draw faster, and custom print services. Sign up for the FirstMap updates through the [State Notification system](#); search for FirstMap once you register.

Technical Advisory Committee Update

Mike Townshend reported that there will be a meeting in March and he will inform the committee of time and location.

Geospatial Education Committee

Miriam reported that the K-12 contest has been modified this year to be a Map Gallery and extended the entries to college level this year. The Map Gallery will be at the Delmarva Conference coming up in April and attendees will vote for Best in Show for each of the age categories.

Miriam further reported that GIS Day field trip was very successful in November, with just over 250 students attending. It was so popular that we took it on the road. The GIS Day subcommittee visited 3 schools over the past 2 months and provided several GIS activities with just a handful of volunteers. The GIS Day committee will meet again soon and start planning the 2016 event.

Delmarva GIS Conference

Matt Laick reported that the Delmarva GIS Conference will feature a new format this year with Ignite Speakers in the morning and a special after lunch speaker. Registration will be available in late-January 2016. Follow the Delmarva Conference: on their [Website](#) ; [Twitter](#) (@DelmarvaGIS); and [Facebook](#).

NHD Update

Roger Barlow reported that he is working with Steve Smailer and Matt Jones at DNREC Wetlands group to finalize the MOA for the National Hydrologic Dataset for Delaware.

Presentation – DNREC Flood Risk Adaptation Mapping (FRAM)

Susan Love, of the DNREC Division of Energy and Climate, presented information regarding the FRAM process and maps. See attached for presentation slides.

Presentation – Dewberry – Humanitarian OpenStreetMap Team (HOT)

Robert Delach from Dewberry presented information about a crowdsourcing opportunity to assist in mapping during and after disasters. A copy of his presentation can be accessed through [Prezi](#).

Federal Update

USGS – Roger reported that the State has taken delivery of the most recent LiDAR data. He also mentioned that the NAIP imagery is now available for Delaware.

Academia Update

Olena Smith, from UD indicated that they have rolled out updated UD Campus Maps and are utilizing ArcGIS Online. There are some Esri internships opening up that might be of interest for college students. Olena encouraged folks to follow the UD GIS group on Twitter @UDElGIS

Open Comment Period

Bill Seybold (DE Forest Service) discussed a project being undertaken by NASA, the Carbon Monitoring System (CMS), and indicated they are reaching out to several agencies looking for input. There will be a conference call scheduled soon.

Roberto DeDeus (City of Newark) shared they are working on Discharge maps for stormwater and working on implementing Network Trace on the systems.

Alice Guerrant (DHCA) announced that they will be doing some updates to the CHRIS system including new tools. Look for these updates.

Next Meeting

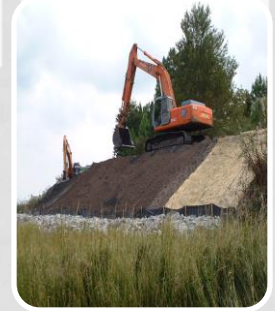
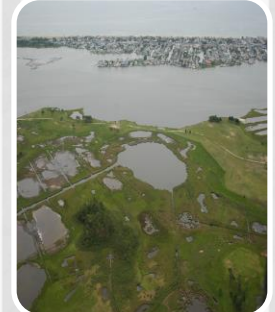
The next DGDC Quarterly meeting will be May 12, 2016.

Adjournment

Roger Barlow made a motion to adjourn the meeting and it was seconded by Bill Seybold. The meeting was adjourned at 11:22 am.

MINIMIZING FLOOD DAMAGE TO STATE ASSETS IN THE 21ST CENTURY

Delaware's Flood Risk Adaptation Map (FRAM)



CLIMATE IMPACTS IN DELAWARE



Increasing Temps



Heavy Precipitation



Sea Level Rise

EXECUTIVE ORDER 41 PREPARES THE STATE FOR CLIMATE IMPACTS

- Requires State Agencies to:
 - Develop policies and plans
 - GHG Emission Reductions
 - Agency Adaptation recommendations
 - Take on-the-ground action
 - Avoid new projects in flood prone areas
 - Plan for future flood levels in projects
 - Use green infrastructure where possible

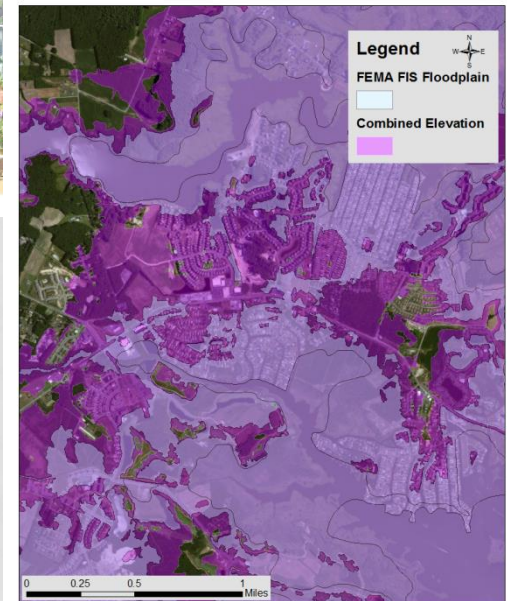
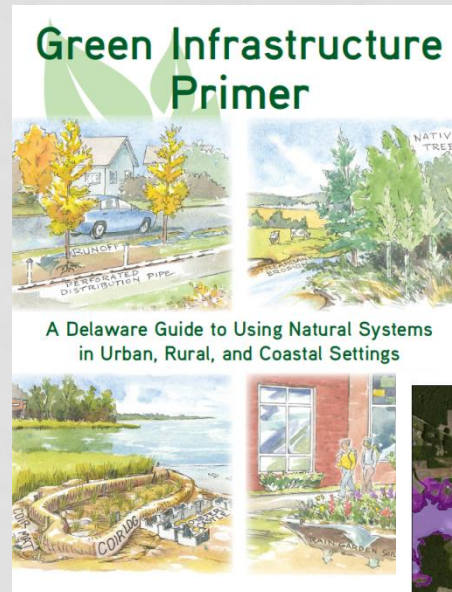


FLOOD AVOIDANCE WORKGROUP MEMBERSHIP

- DeIDOT
 - Bridge Design
 - Transportation Solutions
- DNREC
 - Energy & Climate
 - Coastal
 - Financial Assistance Branch
 - Watershed Stewardship
 - Parks & Rec
- OMB
 - Facilities Management
 - Financial Operations
- Office of State Planning Coordination
- Department of Education
- State Housing Authority

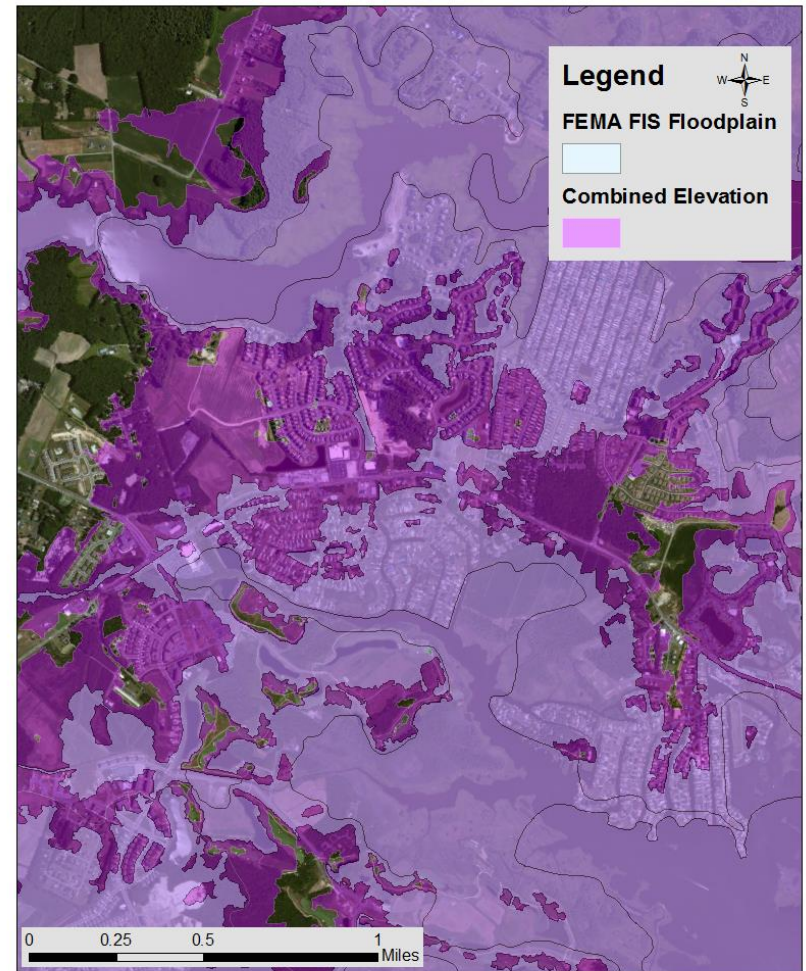
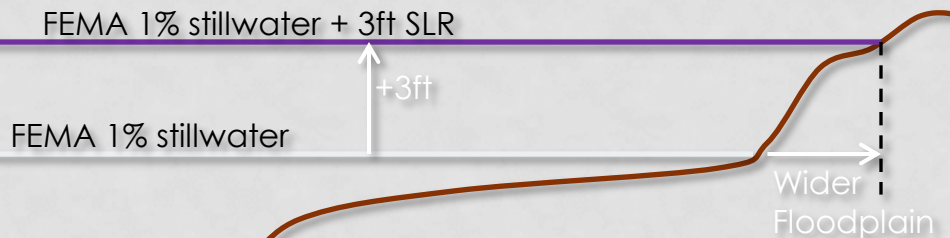
FLOOD AVOIDANCE WORKGROUP PRODUCTS

- *Avoid Projects in flood prone areas:*
 - **Flood Avoidance and Design Guidance**
- *Use Green Infrastructure*
 - **Green Infrastructure Primer**
- *Plan for future flood levels*
 - **Flood Risk Adaptation Map (FRAM)**



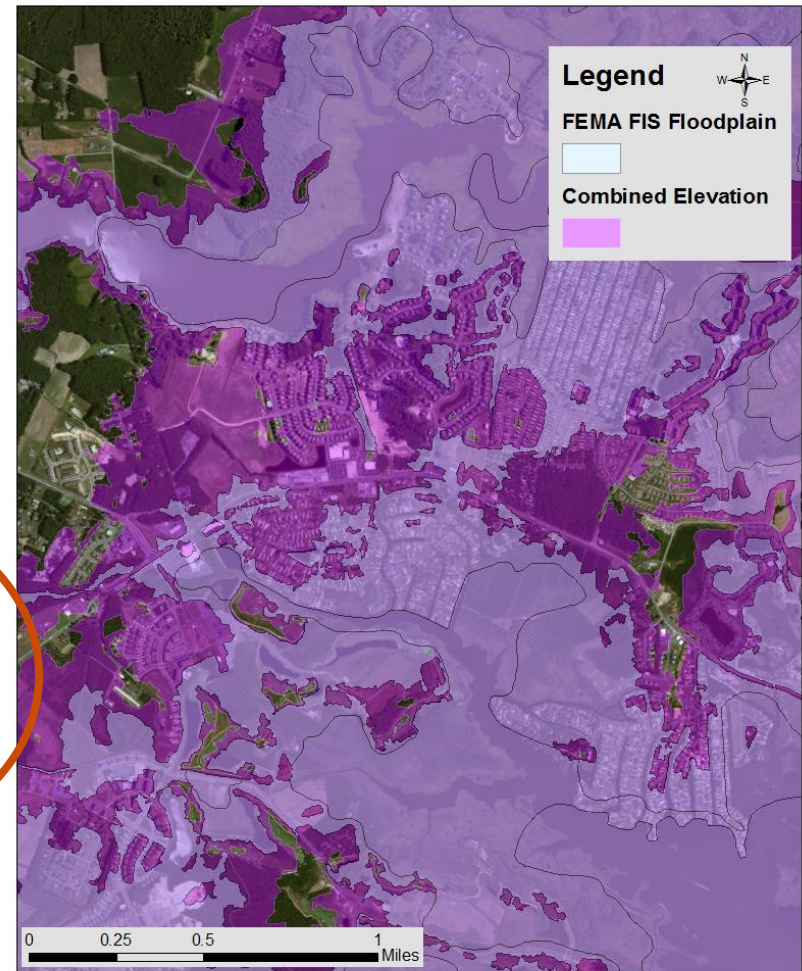
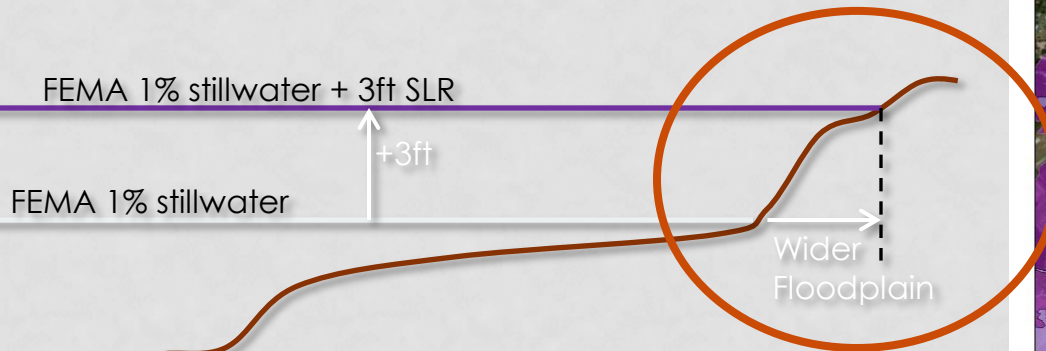
FLOOD RISK ADAPTATION MAPS (FRAM)

- Is one of several tools that state agencies will use to assess their current and future flood risk
- *Depicts the 1% chance floodplain assuming 3' of sea level rise*
 - Many caveats...
- *Developed thru EO 41 for state agencies*
 - Can be used by anyone assessing risk



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FRAM: LARGER FLOODPLAIN, HIGHER FLOOD ELEVATIONS/FLOOD DEPTH AND DIFFERENT ZONE DESIGNATIONS

FEMA FIS map



FRAM



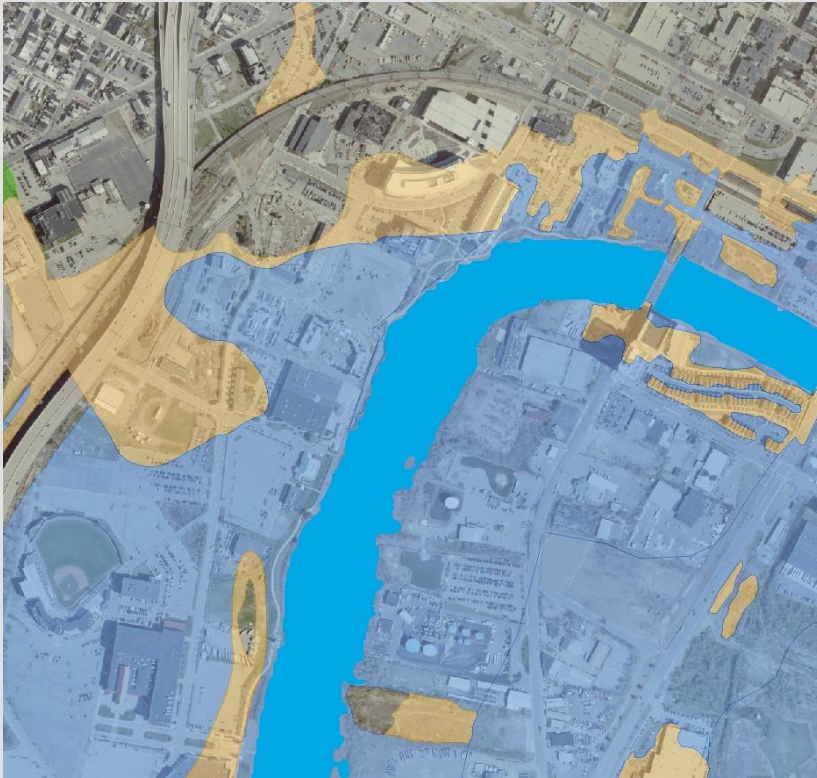
LIMITATIONS OF FRAM

- Greater **wave action** further inland due to increased flood depths not modelled
- More **severe erosion** due to sea level rise and greater waves action not studied
- **Human management** actions not accounted for
- Long-term **shoreline changes** not accounted for

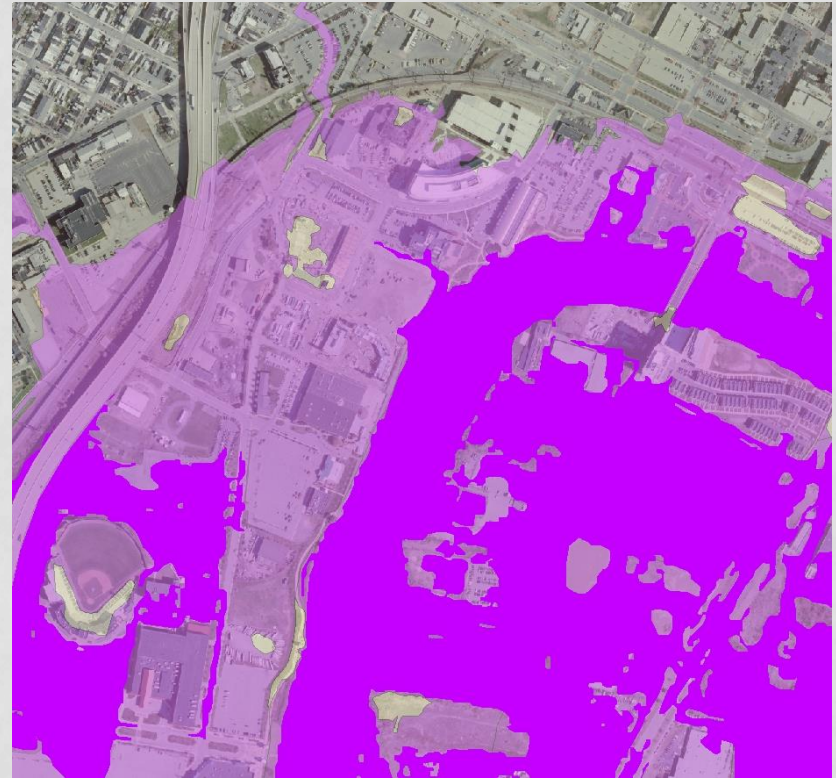


WILMINGTON'S RIVERFRONT

**MHHW and Floodplain
Today**

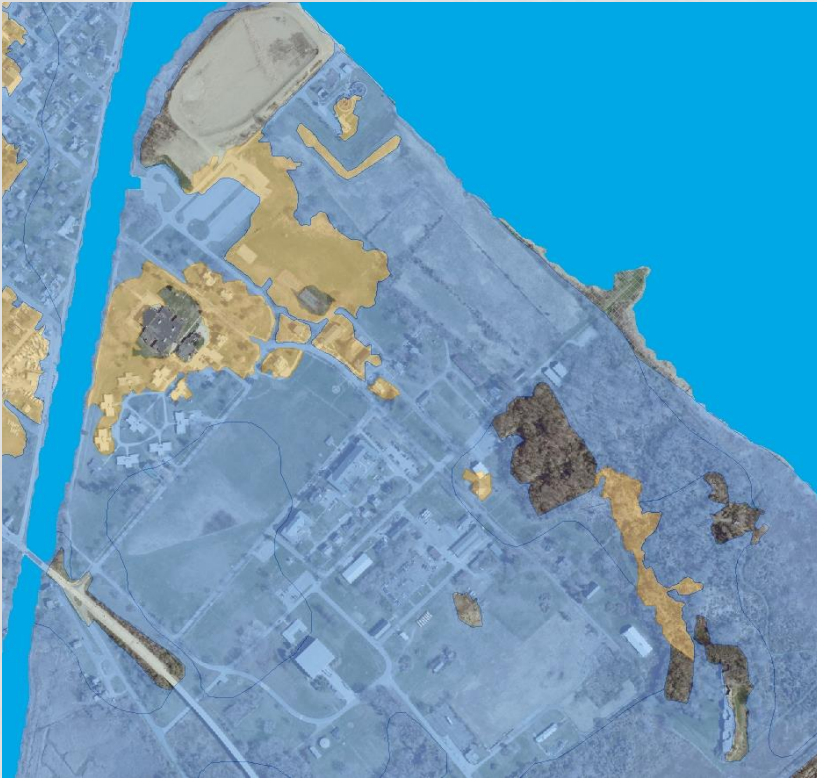


**MHHW and Floodplain
3' Sea Level Rise**



FORT DUPONT, DELAWARE CITY

**MHHW and Floodplain
Today**

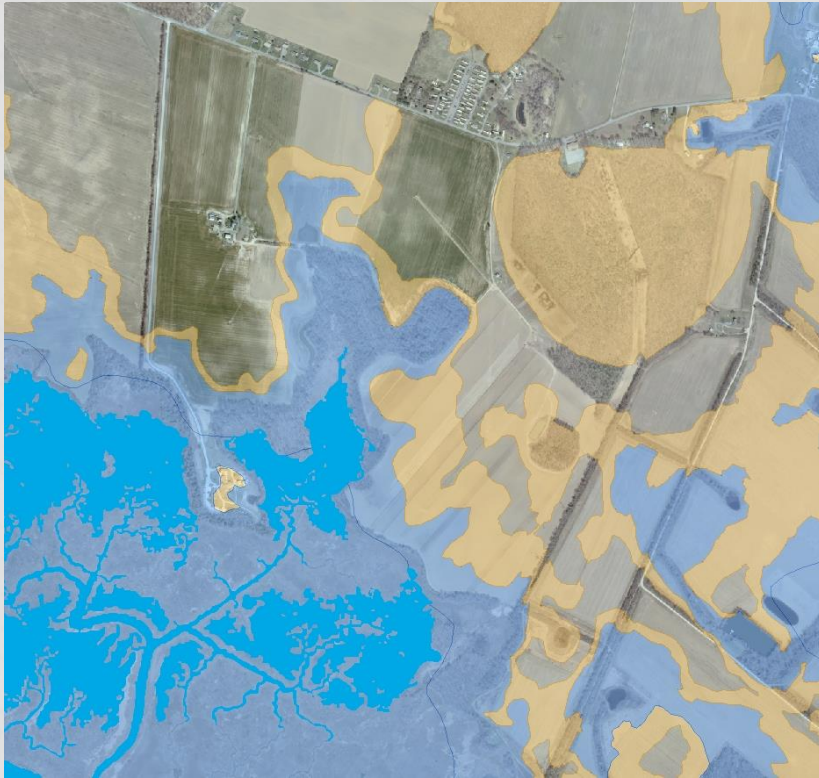


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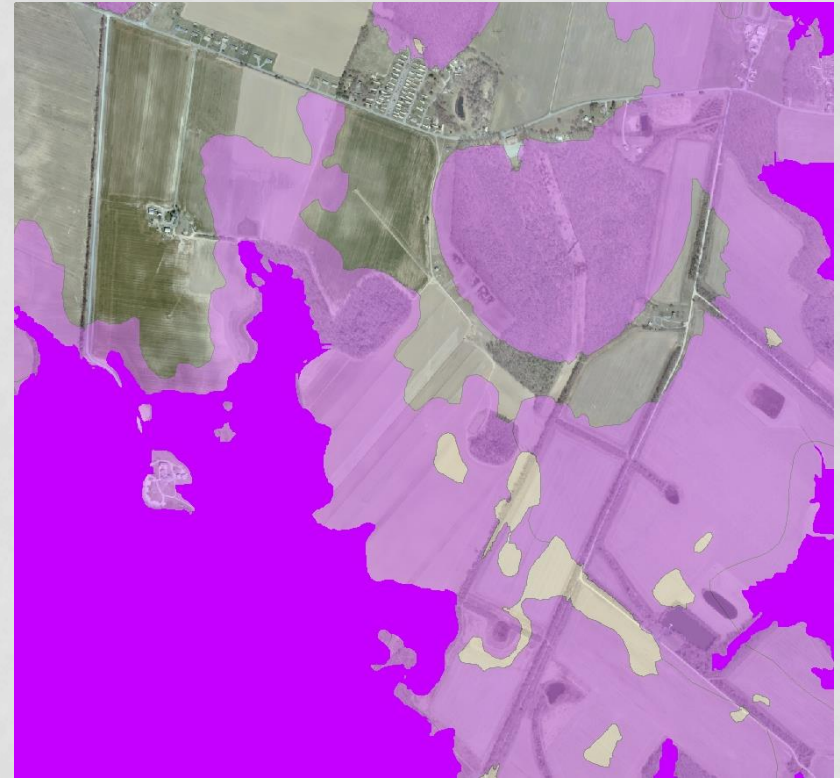


ST. JONES RESERVE AND VICINITY

**MHHW and Floodplain
Today**



**MHHW and Floodplain
3' Sea Level Rise**



WOW, WHAT AN AMAZING MAP! WHERE CAN I GET IT?

- GIS layers available on First Map to state users
 - Including metadata and technical companion
 - Available for public upon request
- Web/map application for state agencies in future



BUT WAIT, THERE'S MORE

Avoiding and Minimizing Flood Damage to State Assets: A Guide...

- To be final in March
- Targets structures and infrastructure
- Principles for flood avoidance
- Step-by-step instructions
- Mapping information



QUESTIONS?

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